FLYING H TRAILER RANCH INC. (PWS 4010062)
SOURCE WATER ASSESSMENT FINAL REPORT

May 14, 2002

State of Idaho
Department of Environmental Quality

Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. This assessment is based on a land use inventory of the designated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

This report, *Source Water Assessment for Flying H Trailer Ranch Inc., Boise, Idaho*, describes the public drinking water system, the boundaries of the zones of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.**

The Flying H Trailer Ranch Inc. (PWS #4010062) drinking water system consists of two active wells. The system approximately 500 people through 148 connections.

Final susceptibility scores are derived from System Construction scores, Hydrologic Sensitivity scores, and Potential Contaminant/Land Use scores. Potential Contaminants/Land Uses are divided into four categories, inorganic contaminants (IOCs, i.e. nitrates, arsenic), volatile organic contaminants (VOCs, i.e. petroleum products), synthetic organic contaminants (SOCs, i.e. pesticides), and microbial contaminants (i.e. bacteria). As different wells can be subject to various contamination settings, separate scores are given for each type of contaminant.

In terms of total susceptibility, Well #3 rated automatically high for IOCs, VOCs, SOCs, and microbials due to the presence of a road and three homes in the 50 foot sanitary setback distance. In addition, the VOCs tetrachloroethylene (PCE) and 1,1,1-trichloroethane were detected in the well (7/93). The levels of PCE were higher than the allowable limits as set by the EPA, but any detection of a VOC in a well results in an automatic high rating for VOCs as it illustrates a pre-existing pathway for contamination. Traces of the IOCs fluoride, barium, and the VOC Di (2-ethylhexyl)phthalate were also deteced in the well's water, but within allowable limits as set by EPA. If a 50 foot sanitary setback distance had been observed, Well #3 would have rated moderate for all the contaminant types except VOCs.

In terms of total susceptibility, Well #4 rated automatically high for IOCs, VOCs, SOCs, and microbials. The automatic high ratings resulted from a storage area existing within the wellhead's 50 foot sanitary setback distance. If not for the storage area, Well #4 would have rated moderate for all four types of contaminants. Monitoring for total coliform began in March, 1999 and to date, there are no microbial bacteria problems.

Delineations of both wells exist in areas of past or present nitrate usage. Nitrate levels in tested water have been well within EPA's allowable limits. Both delineations intersect a VOC plume of PCE.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For Flying H Trailer Ranch Inc., drinking water protection activities should first focus on correcting any deficiencies outlined in the sanitary survey (an inspection conducted every five years with the purpose of determining the physical condition of a water system's components and its capacity). Actions should be taken to keep a 50-foot radius circle clear around the wellhead. Any spills from the major transportation corridors should be carefully monitored and dealt with. As much of the designated assessment area is outside the direct jurisdiction of Flying H Trailer Ranch Inc., collaboration and partnerships with state and local agencies and industry groups are critical to the success of drinking water protection. The well should maintain sanitary standards regarding wellhead protection.

Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. A strong public education program should be a primary focus of any drinking water protection plan as the delineation contains some urban and residential land uses. Public education topics could include proper lawn and garden care practices, household hazardous waste disposal methods, proper care and maintenance of septic systems, and the importance of water conservation to name but a few. There are multiple resources available to help communities implement protection programs, including the Drinking Water Academy of the U.S. Environmental Protection Agency. As there are major transportation corridors through the delineations, the Idaho Department of Transportation should be involved in protection activities.

A community must incorporate a variety of strategies in order to develop a comprehensive drinking water protection plan, be they regulatory in nature (i.e. zoning, permitting) or non-regulatory in nature (i.e. good housekeeping, public education, specific best management practices). For assistance in developing protection strategies please contact the Boise Regional Office of the Idaho Department of Environmental Quality or the Idaho Rural Water Association.

SOURCE WATER ASSESSMENT FOR FLYING H TRAILER RANCH INC., BOISE , IDAHO

Section 1. Introduction - Basis for Assessment

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this assessment means.** Maps showing the delineated source water assessment area and the inventory of significant potential sources of contamination identified within that area are included. The list of significant potential contaminant source categories and their rankings used to develop the assessment also is included.

Background

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

Level of Accuracy and Purpose of the Assessment

Since there are over 2,900 public water sources in Idaho, there is limited time and resources to accomplish the assessments. All assessments must be completed by May of 2003. An in-depth, site-specific investigation of each significant potential source of contamination is not possible. **Therefore, this assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.**

The ultimate goal of the assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. The Idaho Department of Environmental Quality (DEQ) recognizes that pollution prevention activities generally require less time and money to implement than treatment of a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a drinking water protection program should be determined by the local community based on its own needs and limitations. Wellhead or drinking water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Section 2. Conducting the Assessment

General Description of the Source Water Quality

The Flying H Trailer Ranch Inc. (PWS #4010062) drinking water system consists of two active wells. The system approximately 500 people through 148 connections

In terms of total susceptibility, Well #3 and Well #4 both rated automatically high for IOCs, VOCs, SOCs, and microbials due to infringements upon the 50 foot sanitary setback distance. Well #3 also had a VOC detection of Perc. Both wells exit in a nitrate priority area and both wells' delineations intersect a Perc plume. Traces of IOCs have been detected in the wells and they are within levels established by EPA.

Defining the Zones of Contribution – Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time-of-travel (TOT) zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. DEQ contracted with BARR Engineering to perform the delineation using a combination of MODFLOW and a refined analytical element computer model approved by the EPA in determining the 3-year (Zone 1B), 6-year (Zone 2), and 10-year (Zone 3) TOT for water associated with the Boise Valley aquifer in the vicinity of the Flying H Trailer Ranch Inc.. The computer model used site specific data, assimilated by BARR Engineering from a variety of sources including the Flying H Trailer Ranch Inc., other local area well logs, the Treasure Valley Hydrologic Project, and hydrogeologic reports (detailed below).

Treasure Valley Hydrologic Project Information (Petrich and Urban, 1996; Neely and Crockett, 1998; Petrich et al., 1999)

The "Treasure Valley" is a geopolitical region that includes the lower Boise River sub-basin. The lower Boise River sub-basin begins where the Boise River exits the mountains near the Lucky Peak Reservoir. From Lucky Peak Dam the lower Boise River flows about 64 (river) miles northwestward through the Treasure Valley to its confluence with the Snake River. The Treasure Valley Hydrologic Project area encompasses the lower Boise River area, and extends south to the Snake River. The southern area is included in the study area because of ground water flow from the Lower Boise River basin south toward the Snake River.

Significant amounts of desert area were converted to flood irrigated agriculture beginning in the 1860s. Irrigation led to increases in shallow ground water levels in some areas. The shallow groundwater levels provided an inexpensive and readily obtainable water supply that is used extensively throughout the valley. Much of the population growth in the Treasure Valley has been occurring in previously flood-irrigated agricultural areas, resulting in increased pumpage and a reduction in local aquifer recharge. In addition, irrigation in some areas has become more efficient, reducing the amount of irrigation-related infiltration. Decreasing aquifer recharge and increasing pumpage is thought to be contributing to decreasing ground water levels in some areas.

The Treasure Valley experiences a temperate and arid-to-semiarid climate. Average high temperatures range from about 90°F in summer to 36°F in winter; low temperatures range from about 20°F in winter to about 56°F in summer. The average precipitation ranges from about 8 to 14 inches throughout most of the valley, most of which falls during the colder months.

Major surface water bodies include the Boise River, Lake Lowell, and Lucky Peak Reservoir. The primary source of surface water in the Treasure Valley is precipitation falling in the high elevation area in the Boise River basin upstream of Lucky Peak Dam. Much of the runoff from high elevation areas is stored in three reservoirs: Anderson Ranch Reservoir, Arrowrock Reservoir, and Lucky Peak Reservoir.

The region's croplands are irrigated primarily with surface water through an extensive network of reservoirs and canals. The first canals were constructed in the 1860's; there are now over 1,100 miles of major and intermediate canals in the Treasure Valley. The primary sources of the irrigation water in the Treasure Valley include the Boise, Snake, and Payette Rivers. The majority of canals are owned and maintained by canal companies and irrigation districts.

Hydrogeology (from Petrich et al., 1999)

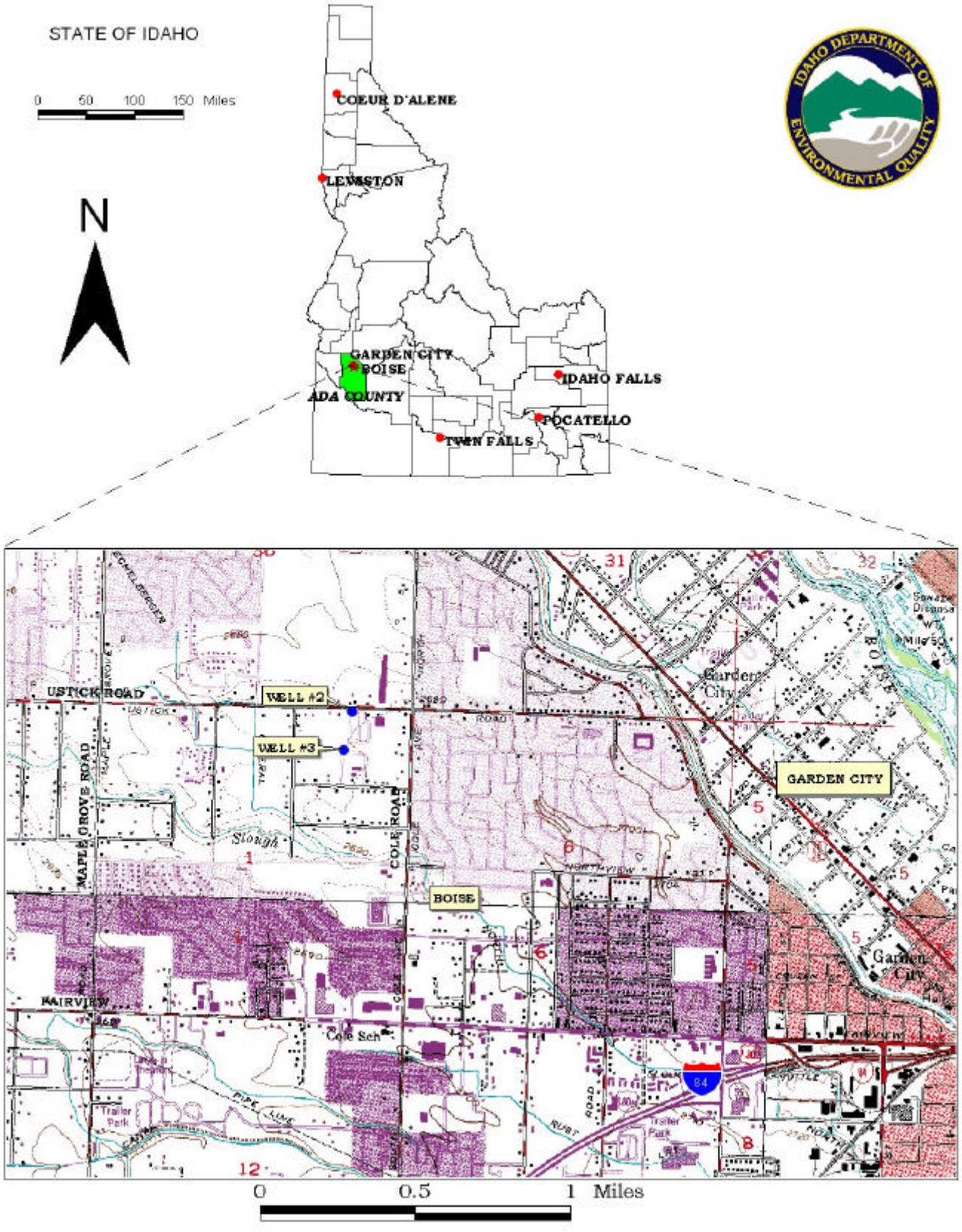
The lower Boise River sub-basin (Treasure Valley) is located within the northwest-trending topographic depression known as the western Snake River Plain. The western Snake River Plain is a relatively flat lowland separating Cretaceous granitic mountains of west-central Idaho from the granitic/volcanic Owyhee mountains in southwestern Idaho. The western Snake River Plain extends from about Twin Falls, Idaho northwestward to Vale, Oregon. The Snake River Plain is about 30 miles wide in the section containing the lower Boise River.

Sediments originating from the surrounding mountains began accumulating on top of thick, basal basalts. Rifting and continued subsidence maintained the lowland topography, leading to the additional accumulation of water and sediments (Othberg, 1994). Basin infilling by sediments and basalt occurred from the late Miocene through the late Pliocene (Othberg, 1994). Incision caused by flowing water in major drainages (e.g., Snake and Boise Rivers) began in the late Pliocene or early Pleistocene, although deposition of coarse sediments continued during Quaternary glaciations (Othberg, 1994).

Several Quaternary basalt flows have been described in the western Snake River Plain, and have been assigned to the upper Snake River Group (Malde, 1991; Malde and Powers, 1962). Lava flowed across portions of the ancestral Snake River Valley (Malde, 1991) in an area that is now south of the Boise River. The Snake River then changed course, incising at its present location along the southern margin of the basalt flows. More recent eruptions (from Kuna Butte and other local sources) spilled lava into the canyon south of Melba. The Snake River has since incised this basalt (Malde, 1991).

The general stratigraphy of the western Snake River Plain consists of (from top to bottom) a thick layer of sedimentary deposits underlain by a thick series of basalt flows, which in turn are underlain by older, tuffaceous sediments and basalt (Malde, 1991; Clemens, 1993). The upper thick zone of sediments (up to approximately 6,000 feet thick) distinguishes the western Snake River Plain from the eastern Snake River Plain, in which the upper section is primarily Quaternary basalt (Wood and Anderson, 1981).

FIGURE 1. Geographic Location of the Flying H Trailer Ranch Inc.



The uppermost sediments and basalt belong to the Pleistocene-age Snake River Group. The Snake River Group consists of terrace sediments, Quaternary alluvium, and Pleistocene basalt flows (Wood and Anderson, 1981). Snake River Group sediments and basalts cover much of the project area (Othberg and Stanford, 1992).

The Snake River Group overlies the Idaho Group sediments. The Idaho Group sediments can be divided into two general parts (Wood and Anderson, 1981). The lower Idaho Group contains sediments described as lake and stream deposits of buff white, brown, and gray sand, silt, clay, diatomite, numerous thin beds of vitric ash, and some basaltic tuffs. The upper part of the lower Idaho Group also contains some local, thin, basalt flows. The upper Idaho Group consists of sands, claystones, and siltstones, but differs from the lower Idaho Group in that it contains a greater percentage of coarser-grained materials. The upper Idaho Group are associated with a fluvial/deltaic/lacustrine depositional environment; the lower Idaho Group sediments were deposited in more of a lacustrine/deltaic environment (Wood, 1994).

Wood (1994) identified a buried lacustrine delta within the Idaho Group sediments in the Nampa-Caldwell area. The location of the delta in the middle of the western Snake River Plain suggests that the eastern part of the Boise River basin was delta plain and flood plain at the time of deposition, while the western part was a deep lake environment. The delta probably prograded northwestward into a lake basin 830 feet deep, based upon high resolution seismic reflection data and resistivity log interpretations. The delta-plain and front sediments were shown to be mostly fine-grained, well-sorted sand with thin layers of mud (Wood, 1994). The northwest trend of the delta indicates a sediment source to the southeast, such as where the Snake River flows today (Wood, 1994).

A substantial, laterally extensive layer of clay is found at depths of 300 to 700 feet below ground surface. The clay is important because it represents, in some areas, a significant aquitard separating shallow overlying aquifers from deeper zones. The clay, often described in well logs as having a blue or gray color, has been observed as far west as Parma, and as far east as Boise (although the clay is not found in the extreme eastern portions of the Treasure Valley). The clay varies from a few feet to a few hundred feet in thickness. Although significant layers of clay are present throughout the Idaho Group sediments, individual clay units are not necessarily continuous over large areas. Also, the top of the clay can vary in elevation by up to approximately 200 feet in some locations, such as in an area west of Lake Lowell. In general, sediments above the “blue clay” are coarser-grained than the interbedded sands, silts, and clays underlying the “blue clay.”

The top of the upper Idaho Group is marked in several parts of the Treasure Valley by a widespread fluvial gravel deposit known as the Tenmile Gravels. Tenmile Gravels contain rounded granitic rocks and felsic porphyries originating from the Idaho Batholith to the north and northeast. The Tenmile Gravels range up to 500 feet in thickness along the Tenmile Ridge south of Boise, but are less than 50 feet thick in the Nampa-Caldwell area (Wood and Anderson, 1981).

Aquifer Systems and Hydrogeologic Characteristics

Ground water for municipal, industrial, rural domestic, and irrigation uses in the Treasure Valley is drawn almost entirely from Snake River Group and Idaho Group aquifers. Many domestic wells draw water from shallow aquifers, such as those in the Snake River Group deposits. Larger production wells (for municipal and agricultural uses) draw water from the deeper Idaho Group sediments.

Aquifers contained in the Snake River and Idaho Group sediments comprise shallow and regional ground water flow systems. Shallow aquifers contained in Snake River Group sediments and basalts may belong to local flow systems. Most local flow system recharge stems from irrigation infiltration and channel (e.g., streams or canals) losses. Discharge from shallow, local flow systems often is to local drains or streams. The time from recharge to discharge in shallow flow systems (resident times) probably ranges from days to tens of years.

In contrast, regional ground water flow systems extend much deeper than local flow systems. The Treasure Valley regional flow system begins in the eastern part of the valley, as indicated by downward hydraulic gradients in the Boise Fan sediments described by Squires et al. (1992). Some water also enters the regional flow system as underflow from the Boise Foothills in the northeastern part of the valley. The regional flow system is thought to discharge primarily to the Boise and Snake Rivers in the western and southwestern parts of the valley.

Aquifer material characteristics, material heterogeneity, and structural controls influence Treasure Valley ground water flow. Coarse-grained materials (e.g., sand and gravel) in upper zones are more capable of transmitting ground water than fine-grained sediments (e.g., silt and clay). Clay and silt in the Snake River sediments can restrict vertical and/or horizontal ground water movement. Perched aquifers are created when fine-grained lenses impede downward vertical flow. A distinctive clay layer, sometimes referred to as "blue clay," is present over large portions of the valley. The clay is absent in the easternmost portions of the lower Boise River Basin, but can reach a thickness of more than 200 feet toward the central and western portions of the basin.

Sequences of interbedded sand, silt, and clay, such as the Deer Flat Surface and the upper portion of the Glenns Ferry Formation of the upper Idaho Group in the Nampa-Caldwell area, are the major water-producing aquifers in a large part of Canyon County (Anderson and Wood, 1981). The coarse-grained sediments in this zone produce water in excess of 2,000 gallons per minute (gpm).

The delineated source water assessment areas for the Flying H Trailer Ranch Inc. can best be described as southeast trending elongated teardrops approximately 5 miles long and 1 mile wide that cross Interstate 184 and extend almost to the Boise airport. (Figures 2 and 3). The actual data used by BARR Engineering in determining the source water assessment delineation areas are available from DEQ upon request.

Identifying Potential Sources of Contamination

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. The locations of potential sources of contamination within the delineation areas were obtained by field surveys conducted by DEQ and from available databases.

Land use within the immediate area of the Flying H Trailer Ranch Inc. wellheads consists of residential property and commercial uses, which was historically irrigated agriculture.

It is important to understand that a release may never occur from a potential source of contamination provided they are using best management practices. Many potential sources of contamination are regulated at the federal level, state level, or both, to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination, including educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply well.

Contaminant Source Inventory Process

A two-phased contaminant inventory of the study area was conducted in October and November 2001. The first phase involved identifying and documenting potential contaminant sources within the Flying H Trailer Ranch Inc. source water assessment areas (Figure 2 and 3) through the use of computer databases and Geographic Information System (GIS) maps developed by DEQ. The second, or enhanced, phase of the contaminant inventory involved contacting the operator to identify and add any additional potential sources in the area.

The delineated source water area for Well #3 (Appendix A: Table 2, Figure 2) contains 268 potential contaminant sources and Well #4 (Appendix A: Table 3, Figure 3) contains 308 potential contaminant sources. Sources include underground storage tanks, gas stations, auto mechanics, waste disposal centers, car washes, laboratories, swimming pools, and many other service related companies with contaminant release potentials.

Section 3. Susceptibility Analyses

The water system's susceptibility to contamination was ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity of the well, land use characteristics, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. Appendix B contains the susceptibility analysis worksheets. The following summaries describe the rationale for the susceptibility ranking.

Hydrologic Sensitivity

The hydrologic sensitivity of a well is dependent upon four factors: the surface soil composition, the material in the vadose zone (between the land surface and the water table), the depth to first ground water, and the presence of a 50-foot thick fine-grained zone (aquitard) above the producing zone of the well. Slowly draining soils such as silt and clay typically are more protective of ground water than coarse-grained soils such as sand and gravel. Similarly, fine-grained sediments in the subsurface and a water depth of more than 300 feet protect the ground water from contamination.

Hydrologic sensitivity is moderate for Well #3 and Well #4 (Table 1). The soils are moderately-to well-drained. The final hydrologic sensitivity of both wells are increased because the vadose zone is less than 300 feet thick and is permeable. The moderate rating results from both wells having aquitards.

Well Construction

Well construction directly affects the ability of the well to protect the aquifer from contaminants. System construction scores are reduced when information shows that potential contaminants will have a more difficult time reaching the intake of the well. Lower scores imply a system is less vulnerable to contamination. For example, if the well casing and annular seal both extend into a low permeability unit, then the possibility of contamination is reduced and the system construction score goes down. If the highest production interval is more than 100 feet below the water table, then the system is considered to have better buffering capacity. If the wellhead and surface seal are maintained to standards, as outlined in sanitary surveys, then contamination down the well bore is less likely. If the well is protected from surface flooding and is outside the 100-year floodplain, then contamination from surface events is reduced. A sanitary survey was conducted in 1995.

Well #3 had a moderate system construction score. Well #3 is an open ended casing 315 feet deep with a pudding clay surface seal 18 feet deep into gravel. Well #3 is located outside of the 100 year floodplain and protected from flooding, has a maintained wellhead and surface seal, and produces its water more than 100 feet below static water level. The surface seal does not extend into a unit of low permeability, resulting in 2 points added to the score.

Well #4 had a low system construction score. Well #4 is 438 feet deep and screened from 377 feet to 423 feet. Well #4 is located outside of the 100 year floodplain and protected from flooding, has a maintained wellhead and surface seal, produces its water more than 100 feet below static water level, and has a surface seal extending into a unit of low permeability.

The Idaho Department of Water Resources *Well Construction Standards Rules* (1993) require all PWSs to follow DEQ standards as well. IDAPA 58.01.08.550 requires that PWSs follow the *Recommended Standards for Water Works* (1997) during construction. Some of the regulations deal with screening requirements, aquifer pump tests, use of a downturned casing vent, and thickness of casing. Table 1 of the *Recommended Standards for Water Works* (1997) lists the required steel casing thickness for various diameter wells. Twelve-inch diameter wells require a casing thickness of 0.375-inches, Eight-inch diameter wells require a casing thickness of 0.322 inches, and five-inch diameter wells require a casing thickness of 0.280 inches. Since both wells were not in compliance with current standards, the final well construction score was automatically increased.

Potential Contaminant Source and Land Use

Well #3 rated high for IOCs (i.e. nitrates, arsenic), VOCs (i.e. petroleum products), moderate for SOCs (i.e. pesticides), and low for microbial contaminants (i.e. bacteria). Well #4 rated moderate for IOCs, high for VOCs, moderate for SOCs, and low for microbials. Petroleum related contaminant sources account for the largest contribution of points to the potential contaminant inventory ratings. Both delineations cross a VOC priority area for PCE and an IOC priority area for nitrate.

Final Susceptibility Ranking

A detection above a drinking water standard MCL, any detection of a VOC or SOC, or a detection of total coliform bacteria or fecal coliform bacteria at the wellhead will automatically give a high susceptibility rating to a well despite the land use of the area because a pathway for contamination already exists. Additionally, potential contaminant sources within 50 feet of a wellhead will automatically lead to a high susceptibility rating. In this case, Well #3 and Well #4 automatically rated high for IOCs, VOCs, SOCs, and microbials because the 50 foot sanitary setback distance was not observed at either well. In addition, Well #3 experienced a detection of PCE (1993). Hydrologic sensitivity and system construction scores are heavily weighted in the final scores. Having multiple potential contaminant sources in the 0- to 3-year time of travel zone (Zone 1B) and agricultural land contribute greatly to the overall ranking.

Table 1. Summary of Flying H Trailer Ranch Inc. Susceptibility Evaluation

Well	Susceptibility Scores[1]									
	Hydrologic Sensitivity	Contaminant Inventory				System Construction	Final Susceptibility Ranking			
		IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
Well #3	M	H	H	M	L	M	H*	H**	H*	H*
Well #4	M	M	H	M	L	L	H*	H*	H*	H*

[1]H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility,
IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical
H* = Well automatically scored high due to 50 foot sanitary setback distance infringement
H = Well automatically scored high due 1993 detection of PCE in the well.**

Susceptibility Summary

In terms of total susceptibility, Well #3 and Well #4 both rated automatically high for IOCs, VOCs, SOCs, and microbials due to infringements upon the 50 foot sanitary setback distance. Well #3 also had a VOC detection of Perc. Both wells exit in a nitrate priority area and both wells' delineations intersect a Perc plume. Traces of IOCs have been detected in the wells and they are within levels established by EPA.

Section 4. Options for Drinking Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective drinking water protection program is tailored to the particular local drinking water protection area. A community with a fully developed source water protection program will incorporate many strategies. For Flying H Trailer Ranch Inc., drinking water protection activities should first focus on correcting any deficiencies outlined in the sanitary. Actions should be taken to keep a 50-foot radius circle clear around the wellhead. Any spills from the major transportation corridors should be carefully monitored and dealt with. As much of the designated protection area is outside the direct jurisdiction of

Flying H Trailer Ranch Inc., making collaboration and partnerships with state and local agencies and industry groups are critical to the success of drinking water protection. The well should maintain sanitary standards regarding wellhead protection.

Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. A strong public education program should be a primary focus of any drinking water protection plan as the delineation contains some urban and residential land uses. Public education topics could include proper lawn and garden care practices, household hazardous waste disposal methods, proper care and maintenance of septic systems, and the importance of water conservation to name but a few. There are multiple resources available to help communities implement protection programs, including the Drinking Water Academy of the U.S. Environmental Protection Agency. As there are major transportation corridors through the delineations, the Idaho Department of Transportation should be involved in protection activities. Drinking water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission, the Ada Soil Conservation District, and the Natural Resources Conservation Service.

A community must incorporate a variety of strategies in order to develop a comprehensive drinking water protection plan, be they regulatory in nature (i.e. zoning, permitting) or non-regulatory in nature (i.e. good housekeeping, public education, specific best management practices). For assistance in developing protection strategies please contact the Boise Regional Office of the Idaho DEQ or the Idaho Rural Water Association.

Assistance

Public water supplies and others may call the following DEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the DEQ office for preliminary review and comments.

Boise Regional DEQ Office (208) 373-0550

State DEQ Office (208) 373-0502

Website: http://www.deq.state.id.us

Water suppliers serving fewer than 10,000 persons may contact Melinda Harper, Idaho Rural Water Association, at (208) 373-7001 (mharper@idahoruralwater.com) for assistance with drinking water protection (formerly wellhead protection) strategies.

POTENTIAL CONTAMINANT INVENTORY
LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund@ is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

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Attachment A

Potential Contaminant Inventories
Tables 2 and 3

Table 2. Flying H Trailer Ranch Inc., Potential Contaminant Inventory

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
1, 5, 14, 24	LUST- Site Cleanup Completed, Impact: Unknown; UST - Closed; Tire-Dealers-Retail; RCRA	0-3	Database Search	VOC, SOC
2	UST – Closed	0-3	Database Search	VOC, SOC
3	UST – Closed	0-3	Database Search	VOC, SOC
4	UST – Gas Station, Open	0-3	Database Search	IOC, VOC, SOC
6	UST- Gas Station, Open	0-3	Database Search	IOC, VOC, SOC
7	Electric Equipment-Manufacturers	0-3	Database Search	IOC, VOC
8	Home Improvements	0-3	Database Search	VOC, SOC
9	Automobile Parts & Supplies-Retail	0-3	Database Search	VOC, SOC
10	Excavating Contractors	0-3	Database Search	IOC, VOC, SOC
11	Water & Sewage Companies-Utility	0-3	Database Search	IOC, Microbials
12	Movers	0-3	Database Search	VOC, SOC
13	Remodeling/Repairing Bldg Contract	0-3	Database Search	VOC, SOC
15	Automobile Seatcovers Tops & Uphol	0-3	Database Search	VOC, SOC
16	Building Contractors	0-3	Database Search	IOC, VOC, SOC
17	Motorcycles & Motor Scooters-Rpr &	0-3	Database Search	IOC, VOC, SOC
18	Printers	0-3	Database Search	IOC, SOC
19	Automobile Dealers-Used Cars	0-3	Database Search	VOC, SOC
20	Bicycles-Dealers	0-3	Database Search	IOC, VOC, SOC
21	General Contractors	0-3	Database Search	IOC, VOC, SOC
22	Excavating Contractors	0-3	Database Search	IOC, VOC, SOC
23	Garden Centers	0-3	Database Search	IOC, SOC
25, 52, 36, 125	LUST - Site Cleanup Incomplete, Impact: Unknown, Oil Producers, UST - Petroleum Distributor; Open, RCRA	3-6	Database Search	IOC, VOC, SOC
26, 31	LUST - Site Cleanup Incomplete, Impact: Unknown; UST - Gas Station, Closed	3-6	Database Search	IOC, VOC, SOC
27, 148	LUST - Site Cleanup Incomplete, Impact: Unknown; AST	3-6	Database Search	IOC, VOC, SOC
28, 134	UST - Truck/Transporter, Open; SARA	3-6	Database Search	VOC, SOC
29	UST - Gas Station, Open	3-6	Database Search	IOC, VOC, SOC
30	UST - Closed	3-6	Database Search	VOC, SOC
32, 97	Movers; UST - Truck/Transporter, Closed	3-6	Database Search	VOC, SOC
33	UST - Truck/Transporter, Open	3-6	Database Search	VOC, SOC
34, 144, 56, 147	UST - Petroleum Distributor, Closed, SARA - GASOLINE SERVICE STATIONS, Oils-Fuel (Wholesale), AST	3-6	Database Search	IOC, VOC, SOC
35	UST - Gas Station, Open	3-6	Database Search	IOC, VOC, SOC
37	UST - Commercial, Closed	3-6	Database Search	VOC, SOC
38	UST - Gas Station, Open	3-6	Database Search	IOC, VOC, SOC
39	UST - Closed	3-6	Database Search	IOC, VOC, SOC
40	UST - Closed	3-6	Database Search	VOC, SOC
41, 109, 133	UST - Open; Hospitals; RCRA	3-6	Database Search	IOC, SOC
42	UST - Gas Station, Closed	3-6	Database Search	IOC, VOC, SOC
43	UST - Local Government, Closed	3-6	Database Search	IOC, VOC, SOC
44	UST - Closed	3-6	Database Search	IOC, VOC
45, 88	UST - Commercial, Closed; Electric Equipment & Supplies-Wholesale	3-6	Database Search	IOC, VOC
46	UST - Aircraft Owner, Open	3-6	Database Search	IOC, VOC, SOC
47	Embossing	3-6	Database Search	IOC, SOC
48	Storage-Household & Commercial	3-6	Database Search	IOC, VOC, SOC
49	Lawn Maintenance	3-6	Database Search	IOC, VOC, SOC
50	Aircraft Servicing & Maintenance	3-6	Database Search	IOC, VOC, SOC
51	Janitor Service	3-6	Database Search	VOC, SOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
53	Storage-Household & Commercial	3-6	Database Search	IOC, VOC, SOC
54	Automobile Repairing & Service	3-6	Database Search	IOC, VOC, SOC
55	Typesetting (Manufacturers)	3-6	Database Search	IOC, VOC, SOC
57	Veterinarians	3-6	Database Search	VOC, SOC
58	Automobile Dealers-Used Cars	3-6	Database Search	VOC, SOC
59	Automobile Dealers-Used Cars	3-6	Database Search	VOC, SOC
60, 126, 141	Oil Producers; RCRA;SARA - PETROLEUM BULK STATIONS & TERM	3-6	Database Search	IOC, VOC, SOC
61	Septic Tanks-Cleaning & Repairing	3-6	Database Search	IOC,
62	Hospitals	3-6	Database Search	IOC, SOC
63	Pipe Line Companies	3-6	Database Search	IOC, VOC, SOC
64	Cleaners	3-6	Database Search	VOC
65	Controls Control Systs/Regulators	3-6	Database Search	VOC, SOC
66	Electric Equipment & Supplies-Wholesale	3-6	Database Search	IOC, VOC
67	Window Cleaning	3-6	Database Search	SOC
68	Electrical Power Systems-Maintenance	3-6	Database Search	IOC, SOC
69	Electric Equipment-Manufacturers	3-6	Database Search	IOC, SOC
70	Storage-Household & Commercial	3-6	Database Search	IOC, VOC, SOC
71	Home Improvements	3-6	Database Search	IOC, VOC, SOC
72	Optical Goods-Manufacturers	3-6	Database Search	VOC, SOC
73	Publishers-Periodical	3-6	Database Search	IOC, VOC
74	Electric Equipment & Supplies-Wholesale	3-6	Database Search	IOC, VOC
75	Publishers	3-6	Database Search	IOC, VOC
76	Petroleum Products (Wholesale)	3-6	Database Search	IOC, VOC, SOC
77	Car Washing & Polishing-Coin Operated	3-6	Database Search	IOC, VOC
78, 149	Oils-Fuel (Wholesale); AST	3-6	Database Search	IOC, VOC, SOC
79	Floor Refinishing & Resurfacing	3-6	Database Search	VOC, SOC
80	General Contractors	3-6	Database Search	IOC, VOC, SOC
81	Veterinarians	3-6	Database Search	VOC, SOC
82	Candles-Manufacturers	3-6	Database Search	VOC
83	Newspapers (Publishers)	3-6	Database Search	IOC, VOC
84	Leather Goods-Manufacturers	3-6	Database Search	VOC
85	Microfilming Service Equipment	3-6	Database Search	IOC, VOC
86	Screen Printing	3-6	Database Search	IOC, VOC
87	Laboratories-Medical	3-6	Database Search	IOC, VOC
89	General Contractors	3-6	Database Search	IOC, VOC, SOC
90	Laboratories-Medical	3-6	Database Search	IOC, VOC
91	Laundries	3-6	Database Search	IOC, VOC
92	Printers	3-6	Database Search	IOC, VOC
93	Oil Additives-Distributors	3-6	Database Search	IOC, VOC, SOC
94	Welding	3-6	Database Search	IOC, VOC, SOC
95	Waste Disposal-Hazardous	3-6	Database Search	IOC, VOC, SOC
96	Tree Service	3-6	Database Search	IOC, VOC, SOC
98	Electric Equipment & Supplies-Wholesale	3-6	Database Search	IOC, VOC
99	Plumbing Fixtures & Supplies-Whole	3-6	Database Search	
100	Plants-Interior Design & Maintenance	3-6	Database Search	IOC, VOC, SOC
101	Home Builders	3-6	Database Search	IOC, VOC, SOC
102	Bicycles-Dealers	3-6	Database Search	VOC, SOC
103	Controls Control Systs/Regulators	3-6	Database Search	IOC, VOC, SOC
104	Building Contractors	3-6	Database Search	IOC, VOC, SOC
105	Laboratories-Dental	3-6	Database Search	IOC, VOC
106	Signs (Manufacturers)	3-6	Database Search	IOC, VOC, SOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
107	Hospitals	3-6	Database Search	IOC, SOC
108	Hospitals	3-6	Database Search	IOC, SOC
110	Hospitals	3-6	Database Search	IOC, SOC
111	Newsletters (Manufacturers)	3-6	Database Search	IOC, VOC
112	Plumbing Fixtures & Supplies-Whole	3-6	Database Search	VOC, SOC
113, 139	Service Stations-Gasoline & Oil; SARA - GASOLINE SERVICE STATIONS	3-6	Database Search	IOC, VOC, SOC
114	General Contractors	3-6	Database Search	IOC, VOC, SOC
115	Plating (Manufacturers)	3-6	Database Search	IOC, VOC, SOC
116	Laboratories-Medical	3-6	Database Search	IOC, VOC
117	Stone Cutters	3-6	Database Search	IOC, VOC, SOC
118	Laboratories-Medical	3-6	Database Search	IOC, VOC
119	Swimming Pool Contrs Dlrs & Design	3-6	Database Search	IOC, VOC, SOC
120	Microfilming Service Equipment	3-6	Database Search	IOC, VOC
121	Service Stations-Gasoline & Oil	3-6	Database Search	IOC, VOC, SOC
122	Medical Research	3-6	Database Search	IOC, VOC
123	Water Works Equipment & Supplies	3-6	Database Search	VOC, SOC
124	RCRA	3-6	Database Search	IOC, VOC, SOC
127	RCRA	3-6	Database Search	IOC, VOC, SOC
128	RCRA	3-6	Database Search	IOC, VOC, SOC
129	RCRA	3-6	Database Search	IOC, VOC, SOC
130	RCRA	3-6	Database Search	IOC, VOC, SOC
131	RCRA	3-6	Database Search	
132, 143	RCRA; SARA - PETROLEUM BULK STATIONS & TERM	3-6	Database Search	IOC, VOC, SOC
135	SARA	3-6	Database Search	IOC, VOC, SOC
136	SARA	3-6	Database Search	IOC, VOC, SOC
137	SARA - TELEPHONE COM, EXCEPT RADIO	3-6	Database Search	VOC, SOC
138	SARA - GEN. MEDICAL/SURGICAL HOSPITAL	3-6	Database Search	IOC, VOC, SOC
140, 146	SARA - PETROLEUM BULK STATIONS & TERM, AST	3-6	Database Search	IOC, VOC, SOC
142	SARA - PETROL & PET PROD WHOLESALERS	3-6	Database Search	IOC, VOC, SOC
145	SARA - LIQ PETROL GAS (BOT GAS) DEALR	3-6	Database Search	VOC, SOC
150	LUST - Site Cleanup Completed, Impact: Unknown	6-10	Database Search	IOC, VOC, SOC
151, 173, 260	LUST - Site Cleanup Completed, Impact: GROUND WATER; UST - Gas Station, Closed; RCRA	6-10	Database Search	IOC, VOC, SOC
152, 162, 201, 258	LUST - Site Cleanup Completed, Impact: Unknown; UST - Commercial, Closed; Service Station Equipment (Wholesale); RCRA	6-10	Database Search	IOC, VOC, SOC
153, 166	LUST - Site Cleanup Completed, Impact: Unknown; UST - Industrial, Closed	6-10	Database Search	IOC, VOC, SOC
154	LUST - Site Cleanup Completed, Impact: Unknown	6-10	Database Search	IOC, VOC, SOC
155	LUST - Site Cleanup Completed, Impact: Unknown	6-10	Database Search	IOC, VOC, SOC
156, 165	LUST - Site Cleanup Incomplete, Impact: POSSIBLE GROUND WATER; UST - Gas Station, Closed	6-10	Database Search	IOC, VOC, SOC
157	UST - Closed	6-10	Database Search	VOC, SOC
158	UST - Residential, Closed	6-10	Database Search	IOC, VOC, SOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
159	UST - Not Listed, Closed	6-10	Database Search	IOC, VOC, SOC
160	UST - Commercial, Closed	6-10	Database Search	IOC, SOCVOC
161	UST - Gas Station, Closed	6-10	Database Search	IOC, VOC, SOC
163	UST - Gas Station, Open	6-10	Database Search	IOC, VOC, SOC
164	UST - Gas Station, Open	6-10	Database Search	IOC, VOC, SOC
167	UST - Not Listed, Open	6-10	Database Search	IOC, VOC, SOC
168	UST - Not Listed, Closed	6-10	Database Search	IOC, VOC, SOC
169	UST - Gas Station, Closed	6-10	Database Search	IOC, VOC, SOC
170	UST - Commercial, Closed	6-10	Database Search	IOC, VOC, SOC
171	UST - Commercial, Closed	6-10	Database Search	IOC, VOC, SOC
172, 259	UST - Open; RCRA	6-10	Database Search	IOC, VOC, SOC
174	Home Improvements	6-10	Database Search	VOC, SOC
175	Automobile Detail & Clean-Up Service	6-10	Database Search	VOC, SOC
176	Remodeling/Repairing Bldg Contract	6-10	Database Search	VOC, SOC
177	Veterinarians	6-10	Database Search	VOC, SOC
178	Radio/Tv Broadcasting/Comm Equipment	6-10	Database Search	VOC, SOC
179	Tire-Dealers-Retail	6-10	Database Search	VOC, SOC
180	Machine Shops	6-10	Database Search	VOC, SOC
181	Carpet & Rug Cleaners	6-10	Database Search	VOC, SOC
182	Home Builders	6-10	Database Search	VOC, SOC
183	Automobile Body Shop Equip/Supls	6-10	Database Search	IOC, VOC, SOC
184	Automobile Repairing & Service	6-10	Database Search	IOC, VOC, SOC
185, 186	Veterinarians	6-10	Database Search	VOC, SOC
187	Taxidermists	6-10	Database Search	VOC, SOC
188	Motorcycles & Motor Scooters-Rpr	6-10	Database Search	IOC, VOC, SOC
189, 256	Automobile Repairing & Service, RCRA	6-10	Database Search	IOC, VOC, SOC
190	Tile-Ceramic-Contractors & Dealers	6-10	Database Search	IOC, VOC, SOC
191	General Contractors	6-10	Database Search	IOC, VOC, SOC
192	Printers	6-10	Database Search	IOC, VOC
193	Automobile Repairing & Service	6-10	Database Search	IOC, VOC, SOC
194	Wineries	6-10	Database Search	VOC, SOC
195	Concrete Contractors	6-10	Database Search	IOC, VOC, SOC
196	Cleaners-Upholstery	6-10	Database Search	VOC, SOC
197	Funeral Directors	6-10	Database Search	IOC, SOC
198	Cleaners	6-10	Database Search	VOC
199	General Contractors	6-10	Database Search	IOC, VOC, SOC
200	Phonograph Record/Prerecorded Tape	6-10	Database Search	IOC, VOC
202	Automobile Repairing & Service	6-10	Database Search	IOC, VOC, SOC
203	Tire-Dealers-Retail	6-10	Database Search	VOC, SOC
204	Automobile Lubrication Service	6-10	Database Search	IOC, VOC, SOC
205	Excavating Contractors	6-10	Database Search	IOC, VOC, SOC
206	Car Washing & Polishing-Coin Operation	6-10	Database Search	IOC, VOC
207	General Contractors	6-10	Database Search	IOC, VOC, SOC
208	Automobile Customizing	6-10	Database Search	IOC, VOC, SOC
209	Fire Protection Equipment & Supplies	6-10	Database Search	IOC, VOC, SOC
210	Newspapers (Publishers)	6-10	Database Search	IOC, VOC
211	Oils-Petroleum-Retail	6-10	Database Search	VOC, SOC
212	Printers	6-10	Database Search	IOC, VOC
213	Automobile Repairing & Service	6-10	Database Search	IOC, VOC, SOC
214	Lawn Maintenance	6-10	Database Search	IOC, SOC
215	Property Maintenance	6-10	Database Search	IOC, VOC, SOC
216	Building Contractors	6-10	Database Search	IOC, VOC, SOC
217	Boat Dealers	6-10	Database Search	IOC, VOC, SOC
218	Transmissions-Automobile	6-10	Database Search	IOC, VOC, SOC
219	General Contractors	6-10	Database Search	IOC, VOC, SOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
220	Antiques-Repairing & Restoring	6-10	Database Search	VOC, SOC
221	Surgical Instruments-Manufacturers	6-10	Database Search	IOC, VOC
222	Lawn Mowers-Sharpening & Repairing	6-10	Database Search	IOC, VOC, SOC
223	Wheel Alignment-Frame & Axle Svc-A	6-10	Database Search	IOC, VOC, SOC
224	Tree Service	6-10	Database Search	IOC, VOC
225	Printers	6-10	Database Search	IOC, VOC
226	Cleaners	6-10	Database Search	IOC, VOC
227	Signs (Manufacturers)	6-10	Database Search	VOC, SOC
228	Automobile Repairing & Service	6-10	Database Search	IOC, VOC, SOC
229	Automobile Parts & Supplies-Retail	6-10	Database Search	VOC, SOC
230	Trailers-Truck (Wholesale)	6-10	Database Search	VOC, SOC
231	General Contractors	6-10	Database Search	IOC, VOC, SOC
232	Roofing Contractors	6-10	Database Search	IOC, VOC, SOC
233, 261	Automobile Body-Repairing & Painting; RCRA	6-10	Database Search	IOC, VOC, SOC
234, 262	Printers; RCRA	6-10	Database Search	IOC, VOC
235	Building Contractors	6-10	Database Search	IOC, VOC, SOC
236	Patio Porch & Deck Enclosures	6-10	Database Search	IOC, VOC, SOC
237	Home Builders	6-10	Database Search	IOC, VOC, SOC
238	Automobile Lubrication Service	6-10	Database Search	IOC, VOC, SOC
239, 263	Automobile Radiator-Repairing, RCRA	6-10	Database Search	IOC, VOC, SOC
240	Roofing Contractors	6-10	Database Search	IOC, VOC, SOC
241	Drapery & Curtain Cleaners	6-10	Database Search	IOC, VOC
242	Car Washing/Polishing Equip/Supplies	6-10	Database Search	IOC, VOC
243	Photographers-Portrait	6-10	Database Search	IOC, VOC
244	Automobile Parts & Supplies-Retail	6-10	Database Search	VOC, SOC
245	Building Contractors	6-10	Database Search	IOC, VOC, SOC
246	Laboratories-Dental	6-10	Database Search	IOC, VOC
247	Motorcycles & Motor Scooters-Dealer	6-10	Database Search	VOC, SOC
248	Storage-Household & Commercial	6-10	Database Search	VOC, SOC
249	Photographers-Portrait	6-10	Database Search	IOC, VOC
250	Roofing Contractors	6-10	Database Search	IOC, VOC, SOC
251	Barbers Equipment & Supplies (Wholesale)	6-10	Database Search	VOC, SOC
252	Truck Renting & Leasing	6-10	Database Search	VOC, SOC
253	Federal Government-National Security	6-10	Database Search	IOC, VOC, SOC
254	General Contractors	6-10	Database Search	IOC, VOC, SOC
255	General Contractors	6-10	Database Search	IOC, VOC, SOC
257	RCRA	6-10	Database Search	IOC, VOC, SOC
264	RCRA	6-10	Database Search	IOC, VOC
265	Gravel Pit - Sand and Gravel	6-10	Database Search	IOC, VOC, SOC
266	SARA - GASOLINE SERVICE STATIONS	6-10	Database Search	IOC, VOC, SOC
267	SARA - GASOLINE SERVICE STATIONS	6-10	Database Search	IOC, VOC, SOC
268	VOC - PETROLEUM TANK FARM	6-10	Database Search	IOC, VOC, SOC

[1] RCRA = Resource Conservation and Recovery Act, SARA =Superfund Amendments and Reauthorization Act., WLAP = Wastewater Land Applications Sites, UST = Underground Storage Tank

[2] TOT = time-of-travel (in years) for a potential contaminant to reach the wellhead

[3] IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

Table 3. Flying H Trailer Ranch Inc., Potential Contaminant Inventory

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
1	LUST Site Cleanup Incomplete , Impact: GROUND WATER	0 - 3	Database Search	IOC, VOC, SOC
2, 6	LUST Site Cleanup Completed , Impact: Unknown; UST site - closed	0 - 3	Database Search	IOC, VOC, SOC
3	UST site - closed	0 - 3	Database Search	VOC, SOC
4	UST site - open	0 - 3	Database Search	IOC, VOC, SOC
5, 19	UST site - open; Service Stations-Gasoline & Oil	0 - 3	Database Search	IOC, VOC, SOC
7, 37	UST site - open; SARA site	0 - 3	Database Search	IOC, VOC, SOC
8	UST site - open	0 - 3	Database Search	IOC, VOC, SOC
9, 17	UST site - closed; Automobile Repairing & Service	0 - 3	Database Search	IOC, VOC, SOC
10	Excavating Contractors	0 - 3	Database Search	IOC, VOC, SOC
11	Scrap Metals-Processing/Recycling	0 - 3	Database Search	IOC, VOC, SOC
12	Automobile Parts & Supplies-Retail	0 - 3	Database Search	IOC, VOC, SOC
13	Excavating Contractors	0 - 3	Database Search	IOC, VOC, SOC
14	Automobile Machine Shop Service	0 - 3	Database Search	IOC, VOC, SOC
15	Bicycles-Dealers	0 - 3	Database Search	IOC, VOC, SOC
16, 34	Mufflers & Exhaust Systems-Engine; RCRA site	0 - 3	Database Search	IOC, VOC, SOC
18	Water & Sewage Companies-Utility	0 - 3	Database Search	IOC, VOC, SOC, Microbials
20	Cleaners	0 - 3	Database Search	IOC, VOC
21	Automobile Parts & Supplies-Retail	0 - 3	Database Search	IOC, VOC, SOC
22, 36	Tire-Dealers-Retail; RCRA site	0 - 3	Database Search	IOC, VOC, SOC
23	Automobile Seatcovers Tops & Upholstery	0 - 3	Database Search	VOC, SOC
24	Building Contractors	0 - 3	Database Search	IOC, VOC, SOC
25	Photographers-Portrait	0 - 3	Database Search	IOC, VOC
26	Artificial Eyes-Human (Manufacturer)	0 - 3	Database Search	IOC, VOC
27	Movers	0 - 3	Database Search	IOC, VOC, SOC
28	Motorcycles & Motor Scooters-Rpr	0 - 3	Database Search	IOC, VOC, SOC
29	Printers	0 - 3	Database Search	IOC, VOC
30	Automobile Dealers-Used Cars	0 - 3	Database Search	IOC, VOC, SOC
31	Excavating Contractors	0 - 3	Database Search	IOC, VOC, SOC
32	Sewage Disposal Systems	0 - 3	Database Search	IOC, VOC, SOC, Microbials
33	Garden Centers	0 - 3	Database Search	IOC, VOC, SOC, Microbials
35	RCRA site	0 - 3	3203 N COLE ROAD	VOC, SOC
38, 70	LUST Site Cleanup Incomplete , Impact: Unknown; Oil Producers	3 - 6	Database Search	VOC, SOC
39, 46	LUST Site Cleanup Completed , Impact: Unknown; UST site - closed	3 - 6	Database Search	IOC, VOC, SOC
40	LUST Site Cleanup Incomplete , Impact: Unknown	3 - 6	Database Search	VOC, SOC
41, 178	UST site - open; SARA site	3 - 6	Truck/Transporter; Open	VOC, SOC
42	UST site - open	3 - 6	Database Search	IOC, VOC, SOC
43	UST site - open	3 - 6	Database Search	IOC, VOC, SOC
44	UST site - closed	3 - 6	Database Search	VOC, SOC
45, 173	UST site - open; RCRA site	3 - 6	Database Search	VOC, SOC
47, 128	UST site - closed; Movers	3 - 6	Database Search	IOC, VOC, SOC
48	UST site - open	3 - 6	Database Search	VOC, SOC
49	UST site - closed	3 - 6	Database Search	IOC, VOC, SOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
50	UST site - open	3 – 6	Database Search	IOC, VOC, SOC
51	UST site - open	3 – 6	Database Search	IOC, VOC, SOC
52	UST site - open	3 – 6	Database Search	VOC, SOC
53	UST site - closed	3 – 6	Database Search	IOC, VOC, SOC
54	UST site - open	3 – 6	Database Search	IOC, VOC, SOC
55	UST site - closed	3 – 6	Database Search	IOC, VOC, SOC
56	UST site - closed	3 – 6	Database Search	VOC, SOC
57	UST site - closed	3 – 6	Database Search	VOC, SOC
59	UST site - closed	3 – 6	Database Search	IOC, VOC, SOC
58, 64	UST site - open; UST site - open	3 – 6	Database Search	VOC, SOC
60	UST site - closed	3 – 6	Database Search	IOC, VOC, SOC
61	UST site - closed	3 – 6	Database Search	VOC, SOC
62	UST site - closed	3 – 6	Database Search	VOC, SOC
63	UST site - open	3 – 6	Database Search	VOC, SOC
65	Embossing	3 – 6	Database Search	IOC, VOC
66	Storage-Household & Commercial	3 – 6	Database Search	IOC, VOC, SOC
67	Lawn Maintenance	3 – 6	Database Search	IOC, VOC, SOC
68	Aircraft Servicing & Maintenance	3 – 6	Database Search	IOC, VOC, SOC
69	Janitor Service	3 – 6	Database Search	IOC, VOC, SOC
71	Storage-Household & Commercial	3 – 6	Database Search	IOC, VOC, SOC
72	Automobile Repairing & Service	3 – 6	Database Search	IOC, VOC, SOC
73	Oils-Fuel (Wholesale)	3 – 6	Database Search	VOC, SOC
74	Veterinarians	3 – 6	Database Search	IOC, SOC
75	Automobile Dealers-Used Cars	3 – 6	Database Search	IOC, VOC, SOC
76	Automobile Dealers-Used Cars	3 – 6	Database Search	IOC, VOC, SOC
77	Oil Producers	3 – 6	Database Search	IOC, VOC, SOC
78	Septic Tanks-Cleaning & Repairing	3 – 6	Database Search	IOC, VOC, SOC
79	Hospitals	3 – 6	Database Search	IOC, SOC
80, 169	Automobile Body-Repairing & Painting; RCRA site	3 – 6	Database Search	IOC, VOC, SOC
81	Pipe Line Companies	3 – 6	Database Search	IOC, VOC, SOC
82	General Contractors	3 – 6	Database Search	IOC, VOC, SOC
83	Cleaners	3 – 6	Database Search	IOC, VOC
84	Trucking-Heavy Hauling	3 – 6	Database Search	IOC, VOC, SOC
85	Controls Control Systs/Regulators	3 – 6	Database Search	IOC, VOC
86	Electric Equipment & Supplies-Wholesale	3 – 6	Database Search	IOC, VOC
87	Cleaners-Upholstery	3 – 6	Database Search	IOC, VOC, SOC
88	Typesetting (Manufacturers)	3 – 6	Database Search	IOC, VOC
89	Window Cleaning	3 – 6	Database Search	IOC, VOC, SOC
90	Electrical Power Systems-Maintenance	3 – 6	Database Search	IOC, VOC
91	Electric Equipment-Manufacturers	3 – 6	Database Search	IOC, VOC
92	Storage-Household & Commercial	3 – 6	Database Search	IOC, VOC, SOC
93	Home Improvements	3 – 6	Database Search	IOC, VOC, SOC
94	Delivery Service	3 – 6	Database Search	IOC, VOC, SOC
95	Excavating Contractors	3 – 6	Database Search	IOC, VOC, SOC
96	Optical Goods-Manufacturers	3 – 6	Database Search	IOC, VOC
97	Publishers-Periodical	3 – 6	Database Search	IOC, VOC
98	Electric Equipment & Supplies-Wholesale	3 – 6	Database Search	IOC, VOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
99	Petroleum Products (Wholesale)	3 – 6	Database Search	IOC, VOC, SOC
100	Car Washing & Polishing-Coin Operated	3 – 6	Database Search	IOC, VOC, SOC
101, 195	Oils-Fuel (Wholesale); AST site	3 – 6	Database Search	IOC, VOC, SOC
102	Veterinarians	3 – 6	Database Search	IOC, SOC
103	Industrial Equipment & Supplies	3 – 6	Database Search	IOC, VOC, SOC
104	Floor Refinishing & Resurfacing	3 – 6	Database Search	IOC, VOC, SOC
105	Building Contractors	3 – 6	Database Search	IOC, VOC, SOC
106	General Contractors	3 – 6	Database Search	IOC, VOC, SOC
107	Veterinarians	3 – 6	Database Search	IOC, SOC
108	Candles-Manufacturers	3 – 6	Database Search	VOC, SOC
109	Leather Goods-Manufacturers	3 – 6	Database Search	IOC, VOC, SOC
110	Microfilming Service Equipment	3 – 6	Database Search	IOC, VOC, SOC
111	Screen Printing	3 – 6	Database Search	IOC, VOC
112	Automobile Body Shop Equip/Supls	3 – 6	Database Search	IOC, VOC, SOC
113, 187	Newspapers (Publishers); SARA site	3 – 6	Database Search	IOC, VOC
114	Laboratories-Medical	3 – 6	Database Search	IOC, VOC, SOC
115	Electric Equipment & Supplies-Wholesale	3 – 6	Database Search	IOC, VOC
116	Automobile Machine Shop Service	3 – 6	Database Search	IOC, VOC, SOC
117	General Contractors	3 – 6	Database Search	IOC, VOC, SOC
118	Laboratories-Medical	3 - 6	Database Search	IOC, VOC, SOC
119	Laundries	3 - 6	Database Search	IOC, VOC, SOC
120	Tire-Dealers-Retail	3 - 6	Database Search	IOC, VOC, SOC
121	Printers	3 - 6	Database Search	IOC, VOC
122	General Contractors	3 - 6	Database Search	IOC, VOC, SOC
123	Plumbing Fixtures & Supplies-Wholesale	3 - 6	Database Search	IOC, VOC, SOC
124	Oil Additives-Distributors	3 - 6	Database Search	IOC, VOC, SOC
125	Welding	3 - 6	Database Search	IOC, VOC, SOC
126	Veterinarians	3 - 6	Database Search	IOC, SOC
127	Building Contractors	3 - 6	Database Search	IOC, VOC, SOC
129	Electric Equipment & Supplies-Wholesale	3 - 6	Database Search	IOC, VOC
130	Plumbing Fixtures & Supplies-Wholesale	3 - 6	Database Search	IOC, VOC
131	Paint-Retail	3 - 6	Database Search	IOC, VOC, SOC
132	Plants-Interior Design & Maintenance	3 - 6	Database Search	IOC, VOC, SOC
133	Home Builders	3 - 6	Database Search	IOC, VOC, SOC
134	Laboratories-Dental	3 - 6	Database Search	IOC, VOC, SOC
135	Bicycles-Dealers	3 - 6	Database Search	IOC, VOC, SOC
136	Plumbing Fixtures & Supplies-Wholesale	3 - 6	Database Search	IOC, VOC
137	Controls Control Systs/Regulators	3 - 6	Database Search	IOC, VOC, SOC
138	Building Contractors	3 - 6	Database Search	IOC, VOC, SOC
139	Laboratories-Dental	3 - 6	Database Search	IOC, VOC, SOC
140	Building Contractors	3 - 6	Database Search	IOC, VOC, SOC
141	Signs (Manufacturers)	3 - 6	Database Search	IOC, VOC, SOC
142, 143, 144, 145, 175, 183	Hospitals; RCRA site; SARA site	3 - 6	Database Search	IOC, VOC, SOC
146	Newsletters (Manufacturers)	3 - 6	Database Search	IOC, VOC
147	Plumbing Fixtures & Supplies-Wholesale	3 - 6	Database Search	IOC, VOC
148	Photo Finishing-Retail	3 - 6	Database Search	IOC, VOC
149	Service Stations-Gasoline & Oil	3 - 6	Database Search	IOC, VOC, SOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
150	Service Stations-Gasoline & Oil	3 - 6	Database Search	IOC, VOC, SOC
151	Storage-Household & Commercial	3 - 6	Database Search	IOC, VOC, SOC
152	Veterinarians	3 - 6	Database Search	IOC, SOC
153	General Contractors	3 - 6	Database Search	IOC, VOC, SOC
154	Plating (Manufacturers)	3 - 6	Database Search	IOC, VOC, SOC
155	Laboratories-Medical	3 - 6	Database Search	IOC, VOC, SOC
156	Stone Cutters	3 - 6	Database Search	VOC, SOC
157	Laboratories-Medical	3 - 6	Database Search	IOC, VOC, SOC
158	Swimming Pool Contrs Dlrs & Design	3 - 6	Database Search	IOC, SOC
159	Microfilming Service Equipment	3 - 6	Database Search	IOC, VOC, SOC
160	Service Stations-Gasoline & Oil	3 - 6	Database Search	IOC, VOC, SOC
161	Water Works Equipment & Supplies	3 - 6	Database Search	IOC, VOC, SOC
162	Electric Equipment & Supplies-Wholesale	3 - 6	Database Search	IOC, VOC, SOC
163	Trucking-Motor Freight	3 - 6	Database Search	IOC, VOC, SOC
164	RCRA site	3 - 6	Database Search	IOC, VOC, SOC
165	RCRA site	3 - 6	Database Search	VOC, SOC
166	RCRA site	3 - 6	Database Search	IOC, VOC, SOC
167	RCRA site	3 - 6	Database Search	VOC, SOC
168	RCRA site	3 - 6	Database Search	IOC, VOC, SOC
170	RCRA site	3 - 6	Database Search	VOC, SOC
171	RCRA site	3 - 6	Database Search	VOC, SOC
172	RCRA site	3 - 6	Database Search	VOC, SOC
174	RCRA site	3 - 6	Database Search	IOC, VOC, SOC
176	RCRA site	3 - 6	Database Search	VOC, SOC
177	RCRA site	3 - 6	Database Search	VOC, SOC
179	SARA	3 - 6	Database Search	IOC, VOC, SOC
180	SARA	3 - 6	Database Search	VOC, SOC
181	SARA	3 - 6	Database Search	IOC, VOC, SOC
182	SARA	3 - 6	Database Search	VOC, SOC
184	SARA	3 - 6	Database Search	IOC, VOC, SOC
185, 192	SARA Site; AST	3 - 6	Database Search	IOC, VOC, SOC
186	SARA	3 - 6	Database Search	IOC, VOC, SOC
188	SARA	3 - 6	Database Search	IOC, VOC, SOC
189	SARA	3 - 6	Database Search	IOC, VOC, SOC
190	SARA	3 - 6	Database Search	IOC, VOC, SOC
191	SARA	3 - 6	Database Search	IOC, VOC, SOC
193	AST	3 - 6	Database Search	VOC, SOC
194	AST	3 - 6	Database Search	VOC, SOC
196	LUST Site Cleanup Completed , Impact: Unknown	6 - 10	Database Search	IOC, VOC, SOC
197, 218, 299	LUST Site Cleanup Completed , Impact: GROUND WATER; UST site - closed; RCRA site	6 - 10	Database Search	IOC, VOC, SOC
198, 208, 248, 297	LUST Site Cleanup Completed , Impact: Unknown; UST site - closed; Service Station Equipment (Wholesale); RCRA site	6 - 10	4111 OVERLAND RD	IOC, VOC, SOC
199, 212	LUST Site Cleanup Completed , Impact: Unknown; UST site - closed	6 - 10	Database Search	VOC, SOC
200	LUST Site Cleanup Completed , Impact: Unknown	6 - 10	Database Search	IOC, VOC, SOC
201	LUST Site Cleanup Completed , Impact: Unknown	6 - 10	Database Search	IOC, VOC, SOC
202, 211	LUST Site Cleanup Incomplete , Impact: POSSIBLE GROUND WATER; UST site - closed	6 - 10	Database Search	IOC, VOC, SOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
203	UST site - closed	6 - 10	Database Search	VOC, SOC
204	UST site - closed	6 - 10	Database Search	VOC, SOC
205	UST site - closed	6 - 10	Database Search	VOC, SOC
206	UST site - closed	6 - 10	Database Search	IOC, VOC, SOC
207	UST site - closed	6 - 10	Database Search	IOC, VOC, SOC
209, 233	UST site - closed; Wrecker Service	6 - 10	Database Search	IOC, VOC, SOC
210	UST site - open	6 - 10	Database Search	IOC, VOC, SOC
213	UST site - closed	6 - 10	Database Search	IOC, VOC, SOC
214	UST site - closed	6 - 10	Database Search	IOC, VOC, SOC
215	UST site - closed	6 - 10	Database Search	IOC, VOC, SOC
216	UST site - closed	6 - 10	Database Search	VOC, SOC
217	UST site - open	6 - 10	Database Search	IOC, VOC, SOC
219	Janitor Service	6 - 10	Database Search	IOC, VOC, SOC
220	Home Improvements	6 - 10	Database Search	IOC, VOC, SOC
221	Automobile Detail & Clean-Up Service	6 - 10	Database Search	IOC, VOC, SOC
222	Remodeling/Repairing Bldg Contract	6 - 10	Database Search	IOC, VOC, SOC
223	Veterinarians	6 - 10	Database Search	IOC, SOC
224	Radio/Tv Broadcasting/Comm Equip	6 - 10	Database Search	VOC, SOC
225	Tire-Dealers-Retail	6 - 10	Database Search	IOC, VOC, SOC
226	Machine Shops	6 - 10	Database Search	IOC, VOC, SOC
227	Demolition Contractors	6 - 10	Database Search	IOC, VOC, SOC
228	Carpet & Rug Cleaners	6 - 10	Database Search	IOC, VOC, SOC
229	Home Builders	6 - 10	Database Search	IOC, VOC, SOC
230	Automobile Body Shop Equip/Supls	6 - 10	Database Search	IOC, VOC, SOC
231	Automobile Repairing & Service	6 - 10	Database Search	IOC, VOC, SOC
232	General Contractors	6 - 10	Database Search	IOC, VOC, SOC
234, 235	Veterinarians	6 - 10	Database Search	IOC, SOC
236	Motorcycles & Motor Scooters-Rpr	6 - 10	Database Search	IOC, VOC, SOC
237, 295	Automobile Repairing & Service; RCRA site	6 - 10	Database Search	IOC, VOC, SOC
238	Tile-Ceramic-Contractors & Dealers	6 - 10	Database Search	IOC, VOC, SOC
239	Road Service-Automotive	6 - 10	Database Search	IOC, VOC, SOC
240	General Contractors	6 - 10	Database Search	IOC, VOC, SOC
241	Automobile Repairing & Service	6 - 10	Database Search	IOC, VOC, SOC
242	Wineries	6 - 10	Database Search	IOC, VOC, SOC
243	Concrete Contractors	6 - 10	Database Search	IOC, VOC, SOC
244	Cleaners	6 - 10	Database Search	IOC, VOC
245	General Contractors	6 - 10	Database Search	IOC, VOC, SOC
246	Landscape Contractors	6 - 10	Database Search	IOC, VOC, SOC
247	Phonograph Record/Prerecorded Tape	6 - 10	Database Search	IOC, VOC
249	Tire-Dealers-Retail	6 - 10	Database Search	IOC, VOC, SOC
250	Automobile Lubrication Service	6 - 10	Database Search	IOC, VOC, SOC
251	Car Washing & Polishing-Coin Operated	6 - 10	Database Search	IOC, VOC, SOC
252	Contractors-Equip/Supls-Dlrs/Svc	6 - 10	Database Search	IOC, VOC, SOC
253	General Contractors	6 - 10	Database Search	IOC, VOC, SOC
254	Fire Protection Equipment & Supls	6 - 10	Database Search	IOC, VOC, SOC
255	Newspapers (Publishers)	6 - 10	Database Search	IOC, VOC
256	Oils-Petroleum-Retail	6 - 10	Database Search	IOC, VOC, SOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
257	Printers	6 - 10	Database Search	IOC, VOC
258	Automobile Repairing & Service	6 - 10	Database Search	IOC, VOC, SOC
259	Lawn Maintenance	6 - 10	Database Search	IOC, VOC, SOC
260	Property Maintenance	6 - 10	Database Search	IOC, VOC, SOC
261	Boat Dealers	6 - 10	Database Search	IOC, VOC, SOC
262	Transmissions-Automobile	6 - 10	Database Search	IOC, VOC, SOC
263	Industrial Equipment & Supplies	6 - 10	Database Search	IOC, VOC, SOC
264	Toys-Manufacturers	6 - 10	Database Search	IOC, VOC, SOC
265	Surgical Instruments-Manufacturers	6 - 10	Database Search	IOC, VOC, SOC
266	Wheel Alignment-Frame & Axle Svc	6 - 10	Database Search	IOC, VOC, SOC
267	Tree Service	6 - 10	Database Search	IOC, VOC, SOC
268	Printers	6 - 10	Database Search	IOC, VOC
269	Cleaners	6 - 10	Database Search	IOC, SOC
270	Signs (Manufacturers)	6 - 10	Database Search	IOC, VOC, SOC
271	Automobile Repairing & Service	6 - 10	Database Search	IOC, VOC, SOC
272	Automobile Parts & Supplies-Retail	6 - 10	Database Search	IOC, VOC, SOC
273	Trailers-Truck (Wholesale)	6 - 10	Database Search	IOC, VOC, SOC
274	Roofing Contractors	6 - 10	Database Search	IOC, VOC, SOC
275, 300	Automobile Body-Repairing & Painting; RCRA site	6 - 10	Database Search	IOC, VOC, SOC
276, 301	Printers; RCRA site	6 - 10	Database Search	IOC, VOC
277	Patio Porch & Deck Enclosures	6 - 10	Database Search	IOC, VOC, SOC
278	Trucking-Local Cartage	6 - 10	Database Search	IOC, VOC, SOC
279	Home Builders	6 - 10	Database Search	IOC, VOC, SOC
280	Automobile Lubrication Service	6 - 10	Database Search	IOC, VOC, SOC
281, 302	Automobile Radiator-Repairing; RCRA site	6 - 10	Database Search	IOC, VOC, SOC
282	Roofing Contractors	6 - 10	Database Search	IOC, VOC, SOC
283	Drapery & Curtain Cleaners	6 - 10	Database Search	IOC, SOC
284	Car Washing/Polishing Equip/Supls	6 - 10	Database Search	IOC, VOC, SOC
285	Photographers-Portrait	6 - 10	Database Search	IOC, VOC
286	Automobile Parts & Supplies-Retail	6 - 10	Database Search	IOC, VOC, SOC
287	Motorcycles & Motor Scooters-Dealer	6 - 10	Database Search	IOC, VOC, SOC
288	Storage-Household & Commercial	6 - 10	Database Search	IOC, VOC, SOC
289	Photographers-Portrait	6 - 10	Database Search	IOC, VOC
290	Barbers Equipment & Supplies (Wholesale)	6 - 10	Database Search	IOC, VOC, SOC
291	Truck Renting & Leasing	6 - 10	Database Search	IOC, VOC, SOC
292	Federal Government-National Security	6 - 10	Database Search	IOC, VOC, SOC
293	General Contractors	6 - 10	Database Search	IOC, VOC, SOC
294	General Contractors	6 - 10	Database Search	IOC, VOC, SOC
296	RCRA site	6 - 10	Database Search	IOC, VOC, SOC
298	RCRA site	6 - 10	Database Search	IOC, VOC, SOC
303	RCRA site	6 - 10	Database Search	IOC, SOC
304	Sand and gravel pit	6 - 10	Database Search	IOC, VOC, SOC
305	SARA	6 - 10	Database Search	IOC, VOC, SOC
306	SARA	6 - 10	Database Search	IOC, VOC, SOC

SITE #	Source Description[1]	TOT Zone[2] (years)	Source of Information	Potential Contaminants[3]
307	SARA	6 - 10	Database Search	IOC, VOC, SOC

[1] RCRA = Resource Conservation and Recovery Act, SARA =Superfund Amendments and Reauthorization Act., WLAP = Wastewater Land Applications Sites, UST = Underground Storage Tank

[2] TOT = time-of-travel (in years) for a potential contaminant to reach the wellhead

[3] IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

Attachment B

Flying H Trailer Ranch Inc.
Susceptibility Analysis
Worksheet

The final scores for the susceptibility analysis were determined using the following formulas:

1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)

2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.375)

Final Susceptibility Scoring:

0 - 5 Low Susceptibility

6 - 12 Moderate Susceptibility

≥ 13 High Susceptibility

Ground Water Susceptibility Report Public Water System Name : FLYING H TRAILER RANCH INC Well# : WELL #3
Public Water System Number 4010062 03/20/2002 3:51:23 PM

1. System Construction		SCORE				
Drill Date	02/01/1970					
Driller Log Available	YES					
Sanitary Survey (if yes, indicate date of last survey)	YES	2002				
Well meets IDWR construction standards	NO	1				
Wellhead and surface seal maintained	YES	0				
Casing and annular seal extend to low permeability unit	NO	2				
Highest production 100 feet below static water level	YES	0				
Well located outside the 100 year flood plain	YES	0				
Total System Construction Score		3				
2. Hydrologic Sensitivity						
Soils are poorly to moderately drained	NO	2				
Vadose zone composed of gravel, fractured rock or unknown	YES	1				
Depth to first water > 300 feet	NO	1				
Aquitard present with > 50 feet cumulative thickness	YES	0				
Total Hydrologic Score		4				
3. Potential Contaminant / Land Use - ZONE 1A			IOC Score	VOC Score	SOC Score	Microbial Score
Land Use Zone 1A	URBAN/COMMERCIAL	2	2	2	2	
Farm chemical use high	NO	0	0	0		
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	YES	YES	YES	YES	
Total Potential Contaminant Source/Land Use Score - Zone 1A		2	2	2	2	
Potential Contaminant / Land Use - ZONE 1B						
Contaminant sources present (Number of Sources)	YES	12	18	19	1	
(Score = # Sources X 2) 8 Points Maximum		8	8	8	2	
Sources of Class II or III leacheable contaminants or	YES	4	4	4		
4 Points Maximum		4	4	4		
Zone 1B contains or intercepts a Group 1 Area	YES	2	2	0	0	
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone 1B		14	14	12	2	
Potential Contaminant / Land Use - ZONE II						
Contaminant Sources Present	YES	2	2	2		
Sources of Class II or III leacheable contaminants or	YES	1	1	1		
Land Use Zone II	Less than 25% Agricultural Land	0	0	0		
Potential Contaminant Source / Land Use Score - Zone II		3	3	3	0	
Potential Contaminant / Land Use - ZONE III						
Contaminant Source Present	YES	1	1	1		
Sources of Class II or III leacheable contaminants or	YES	1	1	1		
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0		
Total Potential Contaminant Source / Land Use Score - Zone III		2	2	2	0	
Cumulative Potential Contaminant / Land Use Score		21	21	19	4	
4. Final Susceptibility Source Score		11	11	11	9	
5. Final Well Ranking		High	High	High	High	

Ground Water Susceptibility Report Public Water System Name : FLYING H TRAILER RANCH INC Well# : WELL #2

Public Water System Number 4010062 03/20/2002 3:51:03 PM

1. System Construction		SCORE				
Drill Date	03/19/1999					
Driller Log Available	YES					
Sanitary Survey (if yes, indicate date of last survey)	YES	2002				
Well meets IDWR construction standards	NO	1				
Wellhead and surface seal maintained	YES	0				
Casing and annular seal extend to low permeability unit	YES	0				
Highest production 100 feet below static water level	YES	0				
Well located outside the 100 year flood plain	YES	0				
Total System Construction Score		1				
2. Hydrologic Sensitivity						
Soils are poorly to moderately drained	NO	2				
Vadose zone composed of gravel, fractured rock or unknown	YES	1				
Depth to first water > 300 feet	NO	1				
Aquitard present with > 50 feet cumulative thickness	YES	0				
Total Hydrologic Score		4				
3. Potential Contaminant / Land Use - ZONE 1A		IOC Score	VOC Score	SOC Score	Microbial Score	
Land Use Zone 1A	URBAN/COMMERCIAL	2	2	2	2	
Farm chemical use high	NO	0	0	0		
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	YES	YES	YES	YES	
Total Potential Contaminant Source/Land Use Score - Zone 1A		2	2	2	2	
Potential Contaminant / Land Use - ZONE 1B						
Contaminant sources present (Number of Sources)	YES	28	31	27	3	
(Score = # Sources X 2) 8 Points Maximum		8	8	8	6	
Sources of Class II or III leacheable contaminants or	YES	9	9	9		
4 Points Maximum		4	4	4		
Zone 1B contains or intercepts a Group 1 Area	YES	0	2	0	0	
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone 1B		12	14	12	6	
Potential Contaminant / Land Use - ZONE II						
Contaminant Sources Present	YES	2	2	2		
Sources of Class II or III leacheable contaminants or	YES	1	1	1		
Land Use Zone II	Less than 25% Agricultural Land	0	0	0		
Potential Contaminant Source / Land Use Score - Zone II		3	3	3	0	
Potential Contaminant / Land Use - ZONE III						
Contaminant Source Present	YES	1	1	1		
Sources of Class II or III leacheable contaminants or	YES	1	1	1		
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0		
Total Potential Contaminant Source / Land Use Score - Zone III		2	2	2	0	
Cumulative Potential Contaminant / Land Use Score		19	21	19	8	
4. Final Susceptibility Source Score		9	9	9	8	
5. Final Well Ranking		High	High	High	High	